59. (new) A method of forming electrodes on first and second respective regions of a semiconductor structure, comprising:

a. depositing metal on a surface of a first region of the semiconductor structure;

b. forming a patterned mask over the metal on the surface of the first region, the mask having an opening so that a first portion is covered by the mask and a second portion aligned with the opening is left uncovered by the mask by applying a resist on the metal to form a resist layer, and lithographically patterning the resist layer to form the opening over the second region so that the remaining resist layer overlies the semiconductor structure in the first region;

c. removing metal aligned with the opening in the second portion thereby defining a first electrode overlying and making electrical contact with the first region of the semiconductor structure;

d. removing material of the semiconductor structure aligned with the opening in the second portion to expose a surface of the second region of the semiconductor structure by etching the semiconductor structure while the resist layer remains over the semiconductor structure in the first region; and

e. forming a second electrode making electrical contact with the second region of the semiconductor structure.

Period added

60. (new) The method of claim 59, wherein the step of depositing metal comprises depositing a first metal and subsequently depositing a second metal over the first metal.

61. (new) The method of claim 60, wherein the first metal comprises nickel and the second metal comprises gold, and further comprising annealing the structure so that the metal layers form a substantially transparent material.

62. (new) The method of claim 59, wherein the step of depositing comprises electron beam deposition.